(08%), Incidences of acute coronary syndrome, accelerated hypertension with or with out left ventricular failure and diabetic emergencies.

| Medical emergencies | Counselled group[4178] | Non-counselled group[3761] | P value |
|---|---|---|---|
| Acute Cor Syndrome | 37 | 51 | 0.005 |
| STEMI | 03 | 05 | 0.35 |
| Hypertensive LVF | 06 | 14 | 0.02 |
| Diabetic Emergency | 05 | 14 | 0.009 |

Acute coronary syndrome [NSTMI & STEMI] were 37 and 51 among the counseled and non-counseled groups were respectively [p <0.005]. STEMI occurrences were non-significantly less in counseled group. Hypertensive and Diabetic emergencies were significantly low in counselled group [06 vs 14, p=0.02 and 05 vs 14,p=0.009].

**Conclusions**: Door step heart awareness program with active participation though difficult but highly effective in preventing major cardiac events and very helpful in identifying the asymptomatic pattern of hypertension, diabetes and ischemic heart diseases. Though it is a study in a small and confined area the effect of the door step counselling definitely scores above the passive program at the health centres. Larger studies by other organizations are required to get better results.

# Heart Failure-Cardiomyopathy

## Clinical characteristics, management and outcomes of Indian subcontinent and Middle East acute heart failure patients: Results: From the Gulf acute heart failure registry

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**Background**: To compare clinical characteristics, management and outcomes between Middle East Arabs and Indian subcontinent acute heart failure (AHF) patients enrolled in the Gulf aCute heArt failuRe rEgistry (Gulf CARE) study.

**Methods**: Data were analyzed from 4,539 consecutive AHF patients admitted during Feb.14, 2012 to Nov.14, 2012 in 47 hospitals among 7 Middle East countries.

**Results**: The Middle Eastern Arab group (4157) was older (60 vs. 54 years; p<0.001), with high prevalence of coronary artery disease (48% vs. 37%; p<0.001), valvular heart disease (14% vs. 7%; p<0.001), atrial fibrillation (12% vs. 7%; p=0.005) and khat chewing (21% vs. 1%; p<0.001). Indian subcontinent patients (382) were more likely to be smokers (36% vs. 21%; p<0.001), alcohol consumers (11% vs. 2%; p<0.001) with high prevalence of diabetes mellitus (56% vs. 49%; p=0.011). AHF with reduced ejection fraction (EF<40%) (76% vs. 65%; p<0.001) and ischemic heart disease (65% vs. 53%; p<0.001) as etiology were higher in Indian subcontinent patients with valvular heart disease low in both cohorts (9.3% vs. 5%; p<0.001). Acute coronary syndrome as precipitating factor was more common in Indian subcontinent patients (46% vs. 26%; p<0.001) as well as STEMI precipitating AHF (26% vs. 9%; p<0.001). In-hospital mortality was 6.5% with no difference, but 3-month mortality was significantly high among Middle East Arabs when compared to Indian subcontinent patients (13.7% vs. 7.6%; p<0.003).

**Conclusions**: AHF patients from this region are a decade younger than Western patients with high prevalence of ischemic heart disease, diabetes, a higher preponderance to AHF with reduced ejection fraction. Middle East Arabs were associated with higher rates of heart failure risk factors. In-hospital mortality was similar, but 3-month mortality was high in Middle East group. There is an urgent need to prevent and control ischemic heart disease and diabetes to reduce heart failure burden and mortality among both groups.

## Role of Tolvaptan in congestive heart failure patients: A novel therapeutic approach

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**Background**: Volume overload is the dominant feature of decompensated heart failure (HF) and it often results in adverse clinical Outcomes. Hyponatraemia and volume overload has been reported to be a potent predictor of poor outcome in patients hospitalized for heart failure (HF). The aim of the study was to determine the prevalence and prognostic significance of hyponatraemia/eunatremia in a small subset of HF patients due to any cause with reference to weight reduction and spot urinary sodium and urinary osmolality and symptom class improvement.

**Methods**: 25 patients with Heart failure admitted at a tertiary care hospital were recruited in this observational study. Among them 6 were Eunatremic and 19 were hyponatraemic. Body weight, serum sodium, urinary sodium and urinary osmolality were measured at admission and at one week after starting of TOLVAPTAN (HYPONAT) 15 mg. Difference between body weight, serum sodium, urinary sodium and urinary osmolality was analyzed by using wilcoxon signed rank test.

**Results**: There was significant reduction in body weight (p value<0.001, z= -3.611), serum sodium (p value<0.001, z = -4.147), urinary sodium (p value < 0.001, z = -3.311) at follow up of 1 week. There was no significant difference in urinary osmolality (p value= 0.106, z= -1.614). We also noted significant improvement in symptoms in eunatremic patients (n=6).

**Conclusion**: Tolvaptan acts as aqauretics without affecting urinary sodium and urinary osmolality with reduction of body weight and symptomatic improvement in heart failure patients. The presence of hyponatraemia in outpatients with HF is associated with increased risk of hospitalization. Large scale trials are required before recommending tolvaptan in eunatremic heart failure.